IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No:	To Be Assigned
Applicants:	Kunio GOBARA, et al.
Filed:	Herewith
Title:	INFORMATION PROCESSING DEVICE, PORT DETECTING DEVICE, INFORMATION PROCESSING METHOD, PORT DETECTING METHOD, AND PROGRAM
TC/A.U.:	To Be Assigned
Examiner:	To Be Assigned
Confirmation No.:	To Be Assigned
Docket No.:	MAT-8895US

PETITION TO MAKE SPECIAL FOR
NEW APPLICATION UNDER M.P.E.P. § 708.02, VIII

MAIL STOP PETITION
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant hereby petitions to make this new application, which has not received any examination by the Examiner, special.

If the Office determines that all claims presented are not obviously directed to a single invention, then applicant will make an election without traverse as a prerequisite to the grant of special status.

A search has been completed by a foreign patent office (copy enclosed).

A copy of the references listed in the search from the foreign patent office has been provided via Information Disclosure Statement.

There is submitted herewith a detailed discussion of the references, which discussion particularly points out how the claimed subject matter is distinguishable over the references.

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The fee required by 37 C.F.R. 1.17(h) in the amount of $130.00 is to be paid by credit card as shown on the attached credit card information authorization Form PTO-2038.

Respectfully submitted,

RatnerPrestia

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LEA/ds

Enclosures: Appendix
Search Report (in the form of an ISR from a foreign patent office)
PTO-2038

Dated: August 24, 2006

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I hereby certify that this paper and fee are being deposited, under 37 C.F.R. § 1.10 and with sufficient postage, using the "Express Mail Post Office to Addressee" service of the United States Postal Service on the date indicated above and that the deposit is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

AMANDA KELLY

ds/53300

APPENDIX

The following reference which is submitted herewith and which is the only "X" category reference cited in the foreign search report is deemed most closely related to the subject matter encompassed by the claims:

> Y. Takeda, Symmetric NAT Traversal using STUN, Internet Draft: draft-takada-symmetric-nat-traversal-00.txt, Internet Engineering Task Force, 2003.06 (hereinafter, "the Takeda reference")

Submitted next is a detailed discussion which points out, with the particularity required by 37 CFR § 1.111(b) and (c), how the claimed subject matter is patentable over the Takeda reference.

For communications using NATs (Network Address Translation), various conventional techniques have been proposed for establishing communications between PC1 and PC2 without routing through a server as shown in Fig. 38 [see Fig. 38 and page 2 (lines 9-19) of specification]. For example, when PC1 is to make communications with PC2 through NAT1, PC1 first sends a data packet (i.e., a "bubble packet") from the local side of NAT1 to the global side, as shown in Fig. 38. The communication is established between PC1 and PC2 when PC2 sends a packet to a port on the global side of NAT1 where the bubble packet passed through. Accordingly, it is necessary to be able to detect exactly a location of the port of NAT1 where the bubble packet sent by PC1 previously passed through. However, the location of the port of NAT where the bubble packet passed through cannot always be detected accurately by using the conventional methods [see page 2 (line 27) - page 3 (line 13) of specification].

An information processing device and method is claimed for enabling communications to be performed through a communications processing device, the information processing device and method comprising: transmitting a bubble packet via the communications processing device, the bubble packet being a packet for leaving a transmission history within the communications processing device; and transmitting a detecting packet via the communications processing device, the detecting packet being a packet used for detecting a position of a bubble packet transmission port defined as one of the ports of the communications processing device used for transmitting the bubble packet, the detecting packet transmitted in a manner that a

detecting packet transmission port where the detecting packet passes through becomes the same as or different from the bubble packet transmission port, depending on a type of the communications processing device. One exemplary embodiment of the information processing device 10 is shown in Figure 2 which includes a bubble packet transmitter 12 for transmitting the bubble packet through a communications processing device 2 and a detecting packet transmitter 16 for transmitting the detecting packet via the communications processing device 2 [see Figure 2, Specification at page 10 (lines 21-27), page 11 (line 22) – page 12 (line 20) and page 14 (lines 4) – page 15 (line 14)].

The above features enable the information processing device and method to be able to accurately detect a position of the bubble packet transmission port by using a position of the port of the communications processing device where the detecting packet transmitted by the information processing device passed through, regardless of the type of the communications processing device. As a result, it is possible to reliably establish communications with another device without fail by using the position of the bubble packet transmission port.

It is submitted that the above-discussed features are recited in each of independent claims 1 and 19 of the present application. It is further submitted that such features, as well as the above described advantages resultant therefrom, are not disclosed or suggested by the Takeda reference for at least the following reasons.

The Takeda reference proposes an analytical method for symmetric NATs to obtain more detailed characteristics of the symmetric NAT using STUN (Simple Traversal of UDP through NATs) and describes how to establish a peer-to-peer UDP connection even in situations where NATs (including symmetric NATs) are present at both ends [see Abstract on page 1]. The method is based upon a prediction of a set of an IP address and a port that a symmetric NAT will allocate in an effort to expand the NAT traversal availability [see "1. Introduction" section on pages 1-2.] It is further noted that the Takeda reference states that the document does not provide any specific protocol, nor a proposal for any modification to the current STUN protocol and that in order to incorporate the method described in the document into existing protocols, those protocols will need to be modified [see "1. Introduction" section on page 2].

More particularly, the Takeda reference proposes a possible NAT characteristics discovery using STUN [see section 7 on page 11]. The current STUN message format and test definitions are used as is in order to detect the NAT types defined in Table 6.3.1 of the Takeda reference [see section 7 on page 11 and Table 6.3.1 on pages 9-10]. As described in sections 7.1 and 7.2, various tests are proposed in order to discover the incoming packet filter type and the port allocation rule, respectively [see sections 7 – 7.2 on pages 11-15]. Further described in section 8.4 are suggestions for increasing a prediction success rate by sending invitation packets to multiple destinations [see section 8.4 on page 13]. However, unlike the aforementioned embodiment of the present invention as recited in each of independent claims 1 and 19, the Takeda reference does not disclose or suggest changing the transmission method of a detecting packet and a bubble packet based on types of a communication processing device.

Applicants thus can provide the information processing unit including detecting packet transmission port to transmit the detecting packet based on types of the communication processing device in such a manner that the bubble packet transmission port becomes the same as/ different from detecting packet transmission port in position, where the detecting packet is used for detecting the position of the bubble packet transmission port in the communication processing device.

Using this structure, the position of the bubble packet transmission port can be securely detected in spite of types of the communication processing device.

Moreover, the Takeda reference specifies the bubble packet transmission port by arbitration between the information processing unit and another information processing unit, which is described in the chapter 8 thereof. However, Applicants can specify the bubble packet transmission port without depending on another information processing unit. As a result, Applicants achieve a great advantage that the P2P communication can be established without depending on specification of the another information processing unit.

Applicants thus include the claimed feature of the information processing unit including detecting packet transmission port to transmit the detecting packet based on types of the communication processing device in such a manner that the bubble packet transmission port becomes the same as/different from detecting packet transmission port in position, where the

detecting packet is used for detecting the position of the bubble packet transmission port in the communication processing device.

By contrast, the prior art has feature that the information processing device at a communication source sends a bubble packet through the NAT to leave a transmission history at the section 3.3. As a result, the information processing unit at a communication destination can send the reply packet following the bubble packet.

Thus, Applicants can detect the position of the bubble packet transmission port in spite of types of the communication processing device.